

Work Order ID 162132

Friday, May 26, 2017 1:04:31 PM

162132

~~PRELIMINARY ISSUE~~

Page 1

Item ID: D5373-3 Accept *N9000040100* Setup Start *NS1*
 Revision ID: URF 17-511 Stop *NS2*
 Item Name: Oil Drain Line
 Start Date: 5/29/2017 Start Qty: 7.00 *7* Cust Item ID:
 Required Date: 6/12/2017 Req'd Qty: 7.00 *7* Customer:

Reference: DAS
 12
 Approvals: Process Plan: 8-89 Date: MAY 26 2017 Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr	
D5373	2.0	DAS 9

100 9-89 0.00

100 MAY 29 2017 DAS
 Purchasing 7
 Purchasing Memo 0.00
 Issue P/O: 36471
 Purchase Part Number: 101005-4CR-0080
 Supplier: STRATOFLEX
 Certificate of conformity is required

110 Receive & Inspect for Damage & Mat'l Certs 0.00

110 7x 8017-65
 Packaging Memo 0.00
 Packaging

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY					
Environment ☐		No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐		Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐		Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐		Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐		Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐		Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐		Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐		Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐		Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐		Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐		Manufacturing Process ☐	OTHER : _____					
Misidentified ☐		Past Due ☐						

Work Order ID 162132

Friday, May 26, 2017 1:04:31 PM

162132

Page 2

Item ID: D5373-3 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: URF 17-511 Stop ***NS2***
 Item Name: Oil Drain Line
 Start Date: 5/29/2017 Start Qty: 7.00 ***7*** Cust Item ID:
 Required Date: 6/12/2017 Req'd Qty: 7.00 ***7*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC6- All purchased or subcontracted products Memo	0.00 0.00				<u>7</u>			DAS 38 9-09 JUN 06 2017
121 *121* HAAS 5 AXIS HAAS CNC vertical machine #5	Memo 1- Drill lock wire hole per folio FB505 DWG REV: <u>D</u> FOLIO REV: <u>AA</u> 2- Deburr	2.26 1.66		B.A 17-06-12		<u>7</u>	<u>0</u>		DAS 08 9-09
122 *122* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.00		B.A 17-06-12		<u>7</u>	<u>0</u>		DAS 08 9-09

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER : _____						
Misidentified ☐	☐	Past Due ☐							

Work Order ID 162132

162132

Page 3

Friday, May 26, 2017 1:04:31 PM

Item ID: D5373-3 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: URF 17-511 Stop ***NS2***
Item Name: Oil Drain Line
Start Date: 5/29/2017 Start Qty: 7.00 ***7*** Cust Item ID:
Required Date: 6/12/2017 Req'd Qty: 7.00 ***7*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
123 *123* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00				7	0		DAS 49 9-89 12/8/19
130 *130* Small Fab Small Fab	 Memo INSTALL LABEL D2729 AS PER DWG NOTES	0.00 0.51				7	0	JUN 20 2017	DAS 19 9-89
140 *140* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				7		JUN 20 2017	DAS 38 9-89

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : _____									

Work Order ID 162132

Friday, May 26, 2017 1:04:31 PM

162132

Page 4

Item ID: D5373-3 Accept ***N9000040100*** Setup Start ***NS1***
Revision ID: URF 17-511 Stop ***NS2***
Item Name: Oil Drain Line
Start Date: 5/29/2017 Start Qty: 7.00 ***7*** Cust Item ID:
Required Date: 6/12/2017 Req'd Qty: 7.00 ***7*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Identify as per dwg & Stock Location: <i>PRELIM</i>	0.00							
150									
Packaging	Memo <i>ST 2/2</i>	0.00							
Packaging									
160	QC21- Final Inspection - Work Order Release	0.00							
160									
QC	Memo	0.00							
Quality Control									

POSITIVE RECALL
EFFECTIVE *DATE* AUTH *DATE*
RELEASED *9* DATE *12.2.25*
9-89

At Rev D
Per ECN 17-511

DAS
21
9-89

JUL 25 2017

DAS
38
JUN 20 2017
JUL 25 2017

17/7/26

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																																																																		
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																																																																		
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																																																																		
Large Fab ☐	Composite ☐	Supplier ☐																																																																			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval																																																																	
Description Work Order Deviation		Disposition		Completed By																																																																	
				Lead hand / Supervisor Approval Verification																																																																	
				QC / QA Coordinator Approval																																																																	
<table style="width:100%; border: none;"> <tr> <td colspan="2" style="text-align: center; border: none;">Root Cause</td> <td colspan="3" style="text-align: center; border: none;">FAULT CATEGORY</td> </tr> <tr> <td style="border: none; width: 15%;">Environment ☐</td> <td style="border: none; width: 15%;">No Re-verification ☐</td> <td style="border: none; width: 15%;">Pressure/Forced ☐</td> <td style="border: none; width: 15%;">Temperature/Cure ☐</td> <td style="border: none; width: 15%;">Power Loss/Surge ☐</td> </tr> <tr> <td style="border: none;">Design ☐</td> <td style="border: none;">Operator ☐</td> <td style="border: none;">Bending ☐</td> <td style="border: none;">Set-up ☐</td> <td style="border: none;">Folio/Program ☐</td> </tr> <tr> <td style="border: none;">Doc/Data ☐</td> <td style="border: none;">Offset/Setup ☐</td> <td style="border: none;">Centre Not Concentric ☐</td> <td style="border: none;">BOM/Route ☐</td> <td style="border: none;">Grain ☐</td> </tr> <tr> <td style="border: none;">Equip/Tooling ☐</td> <td style="border: none;">Supplier ☐</td> <td style="border: none;">Cracks ☐</td> <td style="border: none;">Broken/Damage/Defect ☐</td> <td style="border: none;">Weld ☐</td> </tr> <tr> <td style="border: none;">Handling/Pre ☐</td> <td style="border: none;">Training ☐</td> <td style="border: none;">Crimp/Kink/Ripple/Wave ☐</td> <td style="border: none;">Inspection Incomplete/Unqualified ☐</td> <td style="border: none;">Wrong Stock Pulled ☐</td> </tr> <tr> <td style="border: none;">Material ☐</td> <td style="border: none;">Use for Testing ☐</td> <td style="border: none;">Cuffs ☐</td> <td style="border: none;">Contamination ☐</td> <td style="border: none;">Out of Sequence ☐</td> </tr> <tr> <td style="border: none;">Internal Transport ☐</td> <td style="border: none;">Poor Information ☐</td> <td style="border: none;">Crushing ☐</td> <td style="border: none;">Countersink ☐</td> <td style="border: none;">Off-set ☐</td> </tr> <tr> <td style="border: none;">Tribal Knowledge ☐</td> <td style="border: none;">Rushing ☐</td> <td style="border: none;">Heat Treat ☐</td> <td style="border: none;">Cut Too Short ☐</td> <td style="border: none;">Mislabeled ☐</td> </tr> <tr> <td style="border: none;">LOA ☐</td> <td style="border: none;">Product Improvement ☐</td> <td style="border: none;">Wave/Twist in Tube ☐</td> <td style="border: none;">Instructions Incomplete/Unclear ☐</td> <td style="border: none;">Fit/Function ☐</td> </tr> <tr> <td style="border: none;">Substation ☐</td> <td style="border: none;">Process Improvement ☐</td> <td style="border: none;">Marks/Chatter ☐</td> <td style="border: none;">Drill Holes ☐</td> <td style="border: none;">Misaligned/off center ☐</td> </tr> <tr> <td style="border: none;">Past Expiry Date ☐</td> <td style="border: none;">Manufacturing Process ☐</td> <td colspan="3"></td> </tr> <tr> <td style="border: none;">Misidentified ☐</td> <td style="border: none;">Past Due ☐</td> <td colspan="3" style="text-align: center;">OTHER : ☐</td> </tr> </table>					Root Cause		FAULT CATEGORY			Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Past Expiry Date ☐	Manufacturing Process ☐				Misidentified ☐	Past Due ☐	OTHER : ☐		
Root Cause		FAULT CATEGORY																																																																			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐																																																																	
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐																																																																	
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐																																																																	
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐																																																																	
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐																																																																	
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐																																																																	
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐																																																																	
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐																																																																	
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐																																																																	
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐																																																																	
Past Expiry Date ☐	Manufacturing Process ☐																																																																				
Misidentified ☐	Past Due ☐	OTHER : ☐																																																																			

Friday, May 26, 2017 1:04:29 PM

Page 1

162132

D5373-3

Required Date: 6/12/2017

Required Qty: 7.00

Comments: IPP REV:A 16.01.21 NEW ISSUE DD VERF:JLM

[illegible]

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause		FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

SPECIFICATION CONTROL DRAWING

90° ELBOW FLARED FITTING
P/N: 413517-4-4CL
(ALT: 413517-4-4CR)

STRAIGHT FLARED FITTING
P/N: 413524-4-4CL
(ALT: 413524-4-4CR)

MAY 26 2017

DAS
13
9-89

W/O: ~~SS~~
162132

D5373-X - OIL DRAIN LINE

DART PART NUMBER	DESCRIPTION	MANUFACTURER	MANUFACTURER PART NUMBER	LENGTH "L" (INCHES)	MAX O.D. (INCHES)	MIN I.D. (INCHES)	WEIGHT (LBS)	SPECIFICATION	CONSTRUCTION TYPE	CONSTRUCTION REINFORCEMENT	COVER
D5373-1	OIL DRAIN LINE	STRATOFLEX	101005-4CL-0180	18	0.500	0.173	0.26	AS4897 AND AS150 TYPE 1AB	SEAMLESS, EXTRUDED, CONDUCTIVE POLYTETRAFLUOROETHYLENE	CORROSION-RESISTANT STEEL WIRE BRAID	INTEGRAL SILICONE
			ALT: 101005-4CR-0180								
D5373-3	OIL DRAIN LINE	STRATOFLEX	101005-4CL-0080	8	0.500	0.173	0.17	AS4897 AND AS150 TYPE 1AB	SEAMLESS, EXTRUDED, CONDUCTIVE POLYTETRAFLUOROETHYLENE	CORROSION-RESISTANT STEEL WIRE BRAID	INTEGRAL SILICONE
			ALT: 101005-4CR-0080								
D5373-7	OIL DRAIN LINE	STRATOFLEX	101005-4CL-0150	15	0.500	0.173	0.25	AS4897 AND AS150 TYPE 1AB	SEAMLESS, EXTRUDED, CONDUCTIVE POLYTETRAFLUOROETHYLENE	CORROSION-RESISTANT STEEL WIRE BRAID	INTEGRAL SILICONE
			ALT: 101005-4CR-0150								
D5373-9	OIL DRAIN LINE	STRATOFLEX	101005-4CL-0170	17	0.500	0.173	0.26	AS4897 AND AS150 TYPE 1AB	SEAMLESS, EXTRUDED, CONDUCTIVE POLYTETRAFLUOROETHYLENE	CORROSION-RESISTANT STEEL WIRE BRAID	INTEGRAL SILICONE
			ALT: 101005-4CR-0170								

NOTES:

- 1) MATERIAL: PER TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N & B/N USING D2729 LABEL INSTALLED WITH D2182-045 HEAT SHRINK
- 7) WEIGHT: SEE TABLE
- 8) FOR ALTERNATE PART NUMBERS (101005-4CR-XXXX), DRILL LOCK-WIRE HOLES PER SHEET 4, DETAIL A

D	ADDED D5373-7I-9I-11	WK	17.04.25
C	ADDED D5373-5	CC	16.12.01
B	ADDED NOTE 8 AND DETAIL A	CC	16.11.07
A	NEW ISSUE	CC	16.01.07
REV.	DESCRIPTION	BY	DATE
DESIGN	CC	DART AEROSPACE USA, INC EUGENE, OREGON, USA	
DRAWN	WK		
CHECKED	VS	DRAWING NO.	REV. D
MFG. APPR.	LL	D5373	SHEET 1 OF 4
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	OIL DRAIN LINE	NTS
DATE	17.04.25	COPYRIGHT © 2016 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

RELEASED
2017-05-16
EON 17-511

APPROVED

DQA: _____ Date: _____



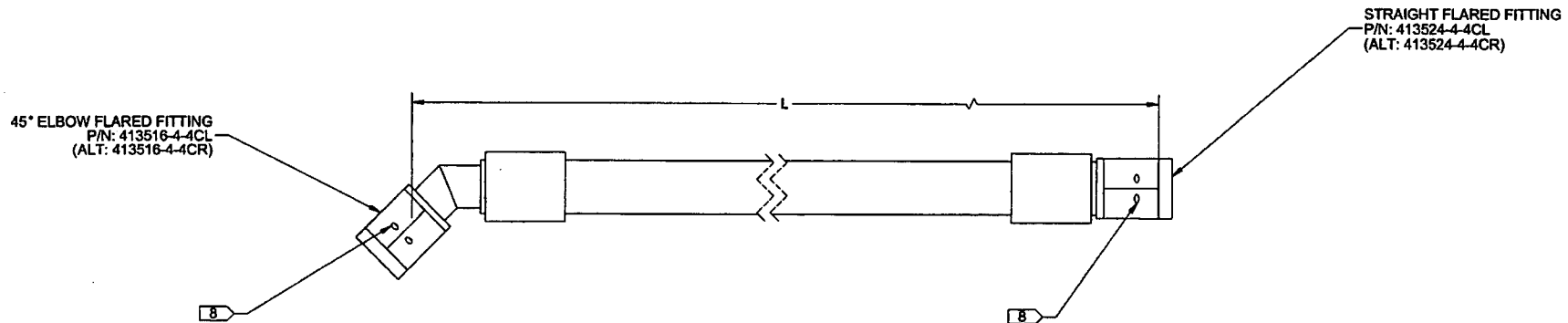
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER :						
Misidentified ☐	☐	Past Due ☐							

SPECIFICATION CONTROL DRAWING



D5373-X - OIL DRAIN LINE

DART PART NUMBER	DESCRIPTION	MANUFACTURER	MANUFACTURER PART NUMBER	LENGTH "L" (INCHES)	MAX O.D. (INCHES)	MIN I.D. (INCHES)	WEIGHT (LBS)	SPECIFICATION	CONSTRUCTION TYPE	CONSTRUCTION REINFORCEMENT	COVER
D5373-5	OIL DRAIN LINE	STRATOFLEX	101003-4CL-0080 ALT: 101003-4CR-0080	8	0.500	0.173	0.17	AS4897 AND AS150 TYPE 1AB	SEAMLESS, EXTRUDED, CONDUCTIVE POLYTETRAFLUOROETHYLENE	CORROSION-RESISTANT STEEL WIRE BRAID	INTEGRAL SILICONE

NOTES:

- 1) MATERIAL: PER TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N & B/N USING D2729 LABEL INSTALLED WITH D2182-045 HEAT SHRINK
- 7) WEIGHT: SEE TABLE
- 8) FOR ALTERNATE PART NUMBERS (101003-4CR-XXXX), DRILL LOCK-WIRE HOLES PER SHEET 4, DETAIL A

RELEASED
2017-05-16

APPROVED

DESIGN	CC	DART AEROSPACE USA, INC. EUGENE, OR	
DRAWN	WK		
CHECKED	VS	DRAWING NO. D5373	REV. D
MFG. APPR.	LL		SHEET 2 OF 4
APPROVED	HS	TITLE OIL DRAIN LINE	SCALE NTS
DE APPR.	DS		
DATE	17.04.25	COPYRIGHT © 2016 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE, OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

DQA: _____ Date: _____



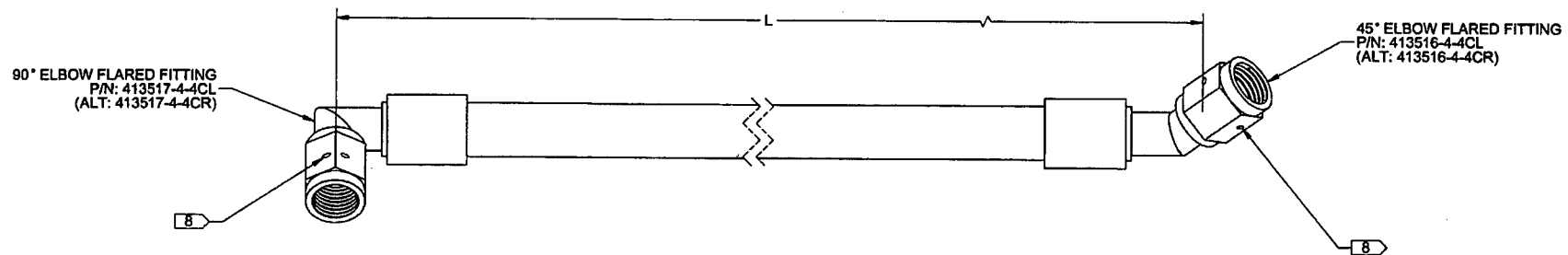
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : ☐							
Misidentified ☐	Past Due ☐								

SPECIFICATION CONTROL DRAWING



D5373-X - OIL DRAIN LINE

DART PART NUMBER	DESCRIPTION	MANUFACTURER	MANUFACTURER PART NUMBER	LENGTH "L" (INCHES)	MAX O.D. (INCHES)	MIN I.D. (INCHES)	WEIGHT (LBS)	SPECIFICATION	CONSTRUCTION TYPE	CONSTRUCTION REINFORCEMENT	COVER
D5373-11	OIL DRAIN LINE	STRATOFLEX	101062B0190CL270	19	0.500	0.173	0.27	AS4897 AND AS150 TYPE 1AB	SEAMLESS, EXTRUDED, CONDUCTIVE POLYTETRAFLUOROETHYLENE	CORROSION-RESISTANT STEEL WIRE BRAID	INTEGRAL SILICONE
			ALT: 101062B0190CR270								

NOTES:

- 1) MATERIAL: PER TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N & B/N USING D2729 LABEL INSTALLED WITH D2182-045 HEAT SHRINK
- 7) WEIGHT: SEE TABLE
- 8) FOR ALTERNATE PART NUMBERS (101062BXXXXCRXXXX), DRILL LOCK-WIRE HOLES PER SHEET 4, DETAIL A

RELEASED
2017-05-16

APPROVED

DART AEROSPACE USA, INC.		
DESIGN	CC	EUGENE, OR
DRAWN	WK	
CHECKED	VS	DRAWING NO. D5373
MFG. APPR.	LL	REV. D SHEET 3 OF 4
APPROVED	HS	TITLE OIL DRAIN LINE
DE APPR.	DS	SCALE NTS
DATE	17.04.25	

COPYRIGHT © 2016 BY DART AEROSPACE USA, INC.
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER : _____						
Misidentified ☐	☐	Past Due ☐							

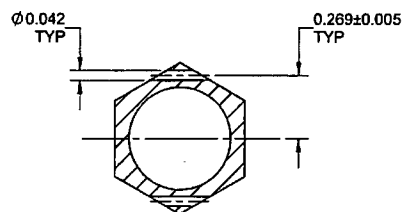
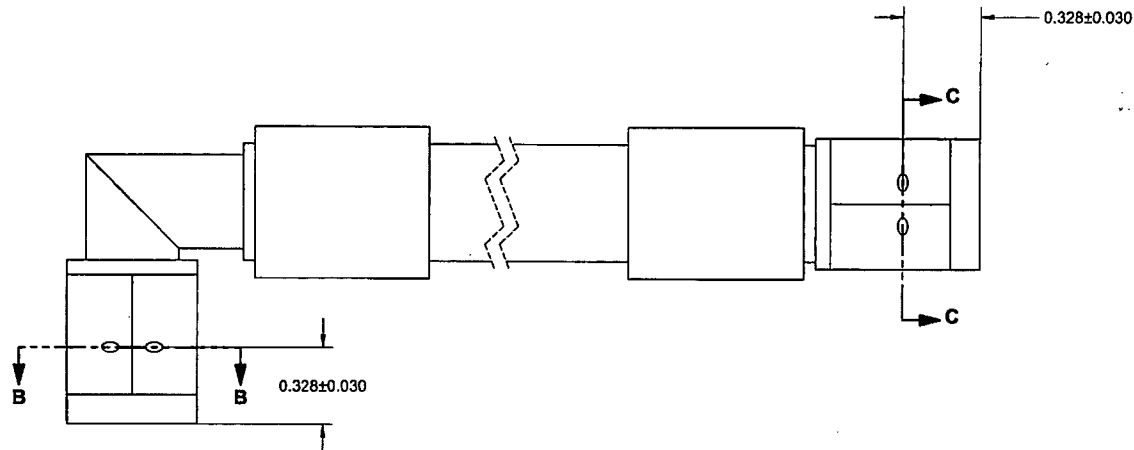
8 7 6 5 4 3 2 1

D

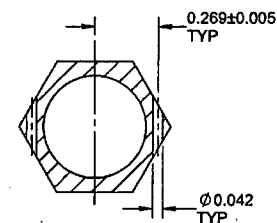
C

B

A



SECTION B-B



SECTION C-C

DETAIL A - LOCKWIRE HOLES (TYPICAL)

RELEASE
2017-05-16

APPROVED

DESIGN	CC	DART AEROSPACE USA, INC.	
DRAWN	WK	EUGENE, OR, USA	
CHECKED	VS	DRAWING NO.	REV. D
MFG. APPR.	LL	D5373	SHEET 4 OF 4
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	OIL DRAIN LINE	NTS
DATE	17.04.25	COPYRIGHT © 2016 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

8 7 6 5 4 3 2 1

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO36471

Purchase Order Date 5/29/2017

PO Print Date 5/29/2017

Page Number 1 of 7

Order From:

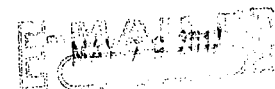
AVIALL
PO BOX 842275

DALLAS, TX 75284-2275
USA

VU-AVI003

Ship To: DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA



11/37680

Contact Name

Vendor Phone 905-676-1695

Ship To Contact

Ship To Phone

Ship Via:

FedEx Overnight collect

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

EXW - (Ex Works)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	101005-4CR-0080 AS PER DWG D5373 REV. D B162132	Oil Drain Line	6/6/2017 Yes 6/6/2017	FN	7.00 Each	\$131.31	\$919.17
Line Total: DAS 38 9-86							\$919.17
2	101005-4CR-0150 AS PER DWG D5373 REV. D B162133	Oil Drain Line	6/6/2017 Yes 6/6/2017	FN	5.00 Each	\$141.40	\$707.00
Line Total:							\$707.00
3	101005-4CR0170 AS PER DWG D5373 REV. D B162134	Oil Drain Line	6/6/2017 Yes 6/6/2017	FN	5.00 Each	\$146.22	\$731.10

PO Instructions: Fedex Acc#151793240

Note:

5/29/2017



PACKING LIST



DELIVERY NUMBER: 8004532632

ROUTE: US FedEx International Priority

PAGE: 1 of 1
DATE: 01JUN17
TIME: 09:36:33
EMP: 000000000
ORD TYP: ZOR 169
CURRENCY: USD
TERMS: Net 30

CUSTOMER PO: PO36471
ORDER NUMBER: 1003140901
ORDER DATE: 30MAY17

B 10003952
I DART AEROSPACE LTD
L 1270 ABERDEEN STREET
L HAWKESBURY ON K6A 1K7
T CANADA
O

S 10003952
H DART AEROSPACE LTD
I 1270 ABERDEEN STREET
P HAWKESBURY ON K6A 1K7
T CANADA
O

S 1009
H AVIALL DALLAS HOSE SHOP
I DALLAS HOSE SHOP
P 2755 REGENT BLVD
F DFW AIRPORT TX 75261
R USA
O

LINE	PO LINE	MFG	ITEM DESCRIPTION	ORDER QUANTITY	SHIP QUANTITY	QUANTITY BACK ORDER	UOM		CUSTOMER PRICE	EXTENDED CUSTOMER PRICE
00010	0	1S	101005-4CR0080 HOSE: MED PRESSURE, PTFE, ASSEMBLY	7	7	0	EA		131.31	919.17
			BATCH 100124167		7					
00020	0	1S	101005-4CR0150 HOSE: LT PRESSURE, PTFE	5	5	0	EA		141.40	707.00
			BATCH 100124168		5					
00030	0	1S	101005-4CR0170 HOSE: LT PRESSURE, PTFE, ASSEMBLY	5	5	0	EA		146.22	731.10
			BATCH 100124169		5					

SP 17-6-5

This is not an Invoice.
For payment processing, please refer to Invoice.

DAS
38
9-89

The recipient of these goods agrees to comply with all export regulations governing the transfer, sale, lease, or use of these goods.
Diversion contrary to U.S. Law is prohibited.

CERTIFICATE OF CONFORMANCE

It is hereby certified that Aviall Services, Inc., is an approved distributor and meets all requirements of ISO9001, AS9100, AS9120 and AC 00-56 at 2750 Regent Blvd. DFW Airport, Texas. The products, articles or parts referenced on this document are in new or overhauled condition and were purchased from an approved source (FAA, EASA, TCCA, Mil Spec or Commercial). The Original Manufacturers' Certifications are maintained on file at our central office location, and copies are available upon request or at Aviall.com. For overhauled or repaired products, articles or parts, the original FAA 8130-3 / EASA Form 1 (Return to Service) or Yellow Tag, from the FAA/JAA/EASA approved Air Agency are attached to the component.

Signature

01JUN17
Date

DISCOUNT TERMS APPLY ONLY TO SUB TOTAL. ALL
RETURNED MERCHANDISE SUBJECT TO HANDLING
FEE.
THIS IS TO CERTIFY THAT AVIALL HAS COMPLIED WITH
THE PROVISIONS OF THE FAIR LABOR ACT OF 1938
AMENDED.

CUSTOMER COPY



Hose Shop 2755 Regent Blvd, Dfw Airport, TX 75261

Phone: 972-586-1380

Fax: 972-586-1381

WWW.AVIALL.COM

TSO CERTIFICATION

It is hereby certified that (A) The parts and/or materials reflected herein were produced under Federal Aviation Administration approved manufacturing and quality control system/methods as set forth in the FAA issued technical standard order authorizations (TSOA) issued to Stratoflex and (B) such parts and/or materials are new and are in condition for safe operation.

Aviall Order Number: 1003140901

0010: 101005-4CR0080

7 ea.

0020: 101005-4CR0150

5 ea.

0030: 101005-4CR0170

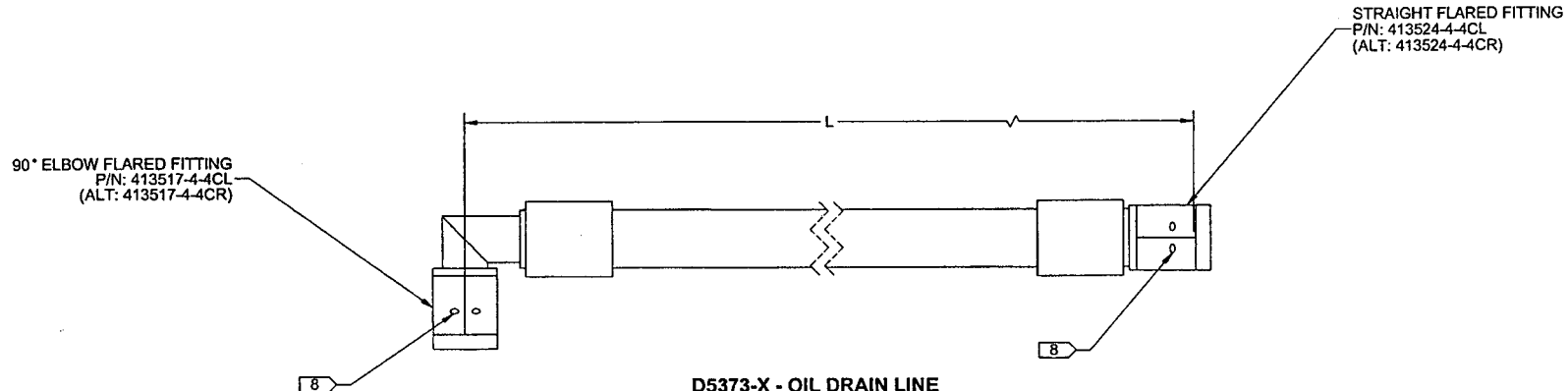
5 ea.

Signed:

Date: 05/31/2017

Aviall is not providing OEM parts. Aviall is an authorized Stratoflex distributor providing TSO assemblies. Numbers referenced per customer requirements are for customer reference ONLY and are in no way intended to be represented as OEM parts. Any reference to an OEM part number does not authorize or reflect installation authority for this part. The installation authority is provided by the mechanic installing this product in accordance with FAR Part 43. If applicable, satisfactory compliance with the conditions and tests required for TSO approval indicates the hose assembly has met the minimum performance standards as stated in the TSO. Furthermore, it is the responsibility of the installer to determine the installation eligibility and that it will not cause the hose assembly to be subjected to conditions in excess of those for which it has been approved.

SPECIFICATION CONTROL DRAWING



D5373-X - OIL DRAIN LINE

DART PART NUMBER	DESCRIPTION	MANUFACTURER	MANUFACTURER PART NUMBER	LENGTH "L" (INCHES)	MAX O.D. (INCHES)	MIN I.D. (INCHES)	WEIGHT (LBS)	SPECIFICATION	CONSTRUCTION TYPE	CONSTRUCTION REINFORCEMENT	COVER
D5373-1	OIL DRAIN LINE	STRATOFLEX	101005-4CL-0180 ALT: 101005-4CR-0180	18	0.500	0.173	0.26	AS4897 AND AS150 TYPE 1AB	SEAMLESS, EXTRUDED, CONDUCTIVE POLYTETRAFLUOROETHYLENE	CORROSION-RESISTANT STEEL WIRE BRAID	INTEGRAL SILICONE
D5373-3	OIL DRAIN LINE	STRATOFLEX	101005-4CL-0080 ALT: 101005-4CR-0080	8	0.500	0.173	0.17	AS4897 AND AS150 TYPE 1AB	SEAMLESS, EXTRUDED, CONDUCTIVE POLYTETRAFLUOROETHYLENE	CORROSION-RESISTANT STEEL WIRE BRAID	INTEGRAL SILICONE
D5373-7	OIL DRAIN LINE	STRATOFLEX	101005-4CL-0150 ALT: 101005-4CR-0150	15	0.500	0.173	0.25	AS4897 AND AS150 TYPE 1AB	SEAMLESS, EXTRUDED, CONDUCTIVE POLYTETRAFLUOROETHYLENE	CORROSION-RESISTANT STEEL WIRE BRAID	INTEGRAL SILICONE
D5373-9	OIL DRAIN LINE	STRATOFLEX	101005-4CL-0170 ALT: 101005-4CR-0170	17	0.500	0.173	0.26	AS4897 AND AS150 TYPE 1AB	SEAMLESS, EXTRUDED, CONDUCTIVE POLYTETRAFLUOROETHYLENE	CORROSION-RESISTANT STEEL WIRE BRAID	INTEGRAL SILICONE

NOTES:

- 1) MATERIAL: PER TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N & B/N USING D2729 LABEL INSTALLED WITH D2182-045 HEAT SHRINK
- 7) WEIGHT: SEE TABLE
- 8) FOR ALTERNATE PART NUMBERS (101005-4CR-XXXX), DRILL LOCK-WIRE HOLES PER SHEET 4, DETAIL A

D	ADDED D5373-7/9/11	WK	17.04.25
C	ADDED D5373-5	CC	16.12.01
B	ADDED NOTE 8 AND DETAIL A	CC	16.11.07
A	NEW ISSUE	CC	16.01.07
REV.	DESCRIPTION	BY	DATE
DESIGN	CC		
DRAWN	WK		
CHECKED	VS		
MFG. APPR.	LL		
APPROVED	HS		
DE APPR.	DS		
DATE	17.04.25		

DART AEROSPACE USA, INC
EUGENE, OREGON, USA

DRAWING NO. **D5373** REV. D
SHEET 1 OF 4

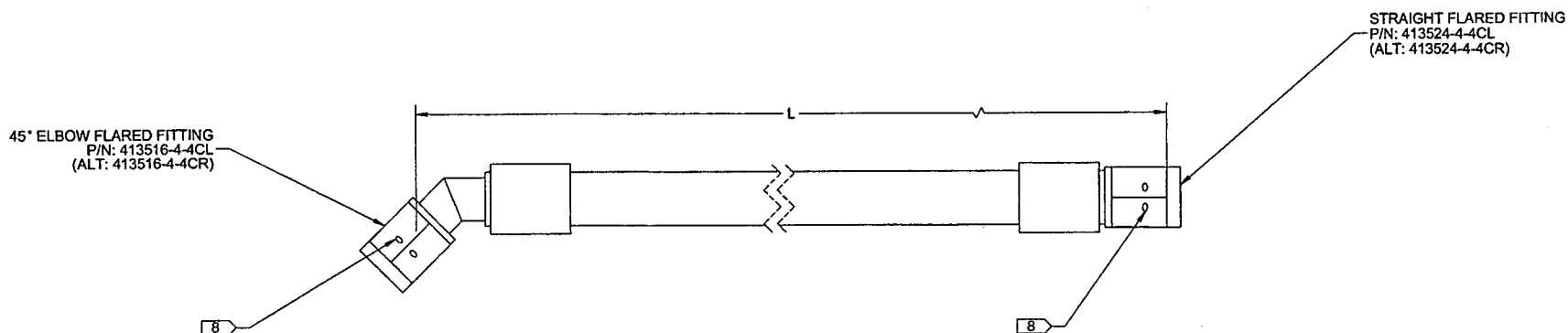
TITLE **OIL DRAIN LINE** SCALE NTS

COPYRIGHT © 2018 BY DART AEROSPACE USA, INC
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

RELEASED
2017-05-16
ECN 17-511

APPROVED

SPECIFICATION CONTROL DRAWING



D5373-X - OIL DRAIN LINE

DART PART NUMBER	DESCRIPTION	MANUFACTURER	MANUFACTURER PART NUMBER	LENGTH "L" (INCHES)	MAX O.D. (INCHES)	MIN I.D. (INCHES)	WEIGHT (LBS)	SPECIFICATION	CONSTRUCTION TYPE	CONSTRUCTION REINFORCEMENT	COVER
D5373-5	OIL DRAIN LINE	STRATOFLEX	101003-4CL-0080 ALT: 101003-4CR-0080	8	0.500	0.173	0.17	AS4897 AND AS150 TYPE 1AB	SEAMLESS, EXTRUDED, CONDUCTIVE POLYTETRAFLUOROETHYLENE	CORROSION-RESISTANT STEEL WIRE BRAID	INTEGRAL SILICONE

NOTES:

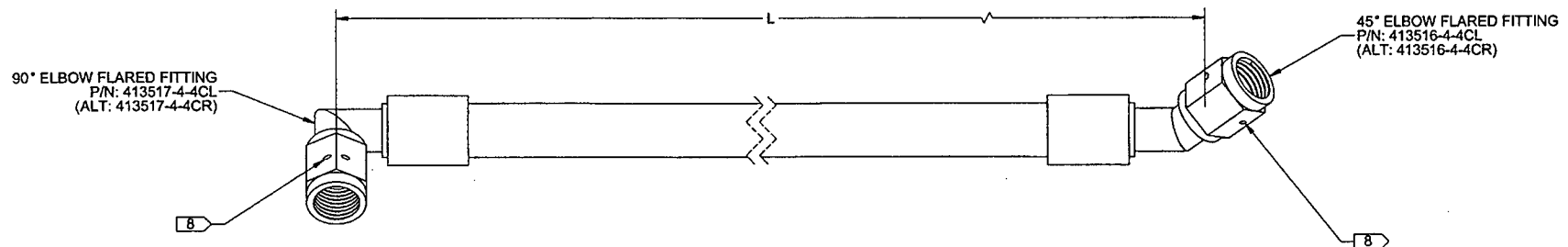
- 1) MATERIAL: PER TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N & B/N USING D2729 LABEL INSTALLED WITH D2182-045 HEAT SHRINK
- 7) WEIGHT: SEE TABLE
- 8) FOR ALTERNATE PART NUMBERS (101003-4CR-XXXX), DRILL LOCK-WIRE HOLES PER SHEET 4, DETAIL A

RELEASED
2017-05-16

APPROVED

DESIGN	CC	DART AEROSPACE USA, INC. EUGENE, OR	
DRAWN	WK		
CHECKED	VS	DRAWING NO. D5373	REV. D
MFG. APPR.	LL		SHEET 2 OF 4
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	OIL DRAIN LINE	NTS
DATE	17.04.25	COPYRIGHT © 2016 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

SPECIFICATION CONTROL DRAWING



D5373-X - OIL DRAIN LINE

DART PART NUMBER	DESCRIPTION	MANUFACTURER	MANUFACTURER PART NUMBER	LENGTH "L" (INCHES)	MAX O.D. (INCHES)	MIN I.D. (INCHES)	WEIGHT (LBS)	SPECIFICATION	CONSTRUCTION TYPE	CONSTRUCTION REINFORCEMENT	COVER
D5373-11	OIL DRAIN LINE	STRATOFLEX	101062B0190CL270	19	0.500	0.173	0.27	AS4897 AND AS150 TYPE 1AB	SEAMLESS, EXTRUDED, CONDUCTIVE POLYTETRAFLUOROETHYLENE	CORROSION-RESISTANT STEEL WIRE BRAID	INTEGRAL SILICONE
			ALT: 101062B0190CR270								

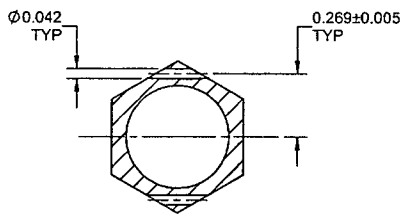
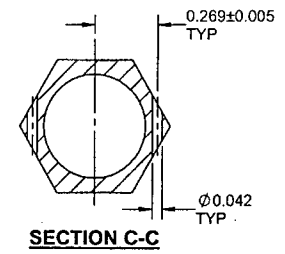
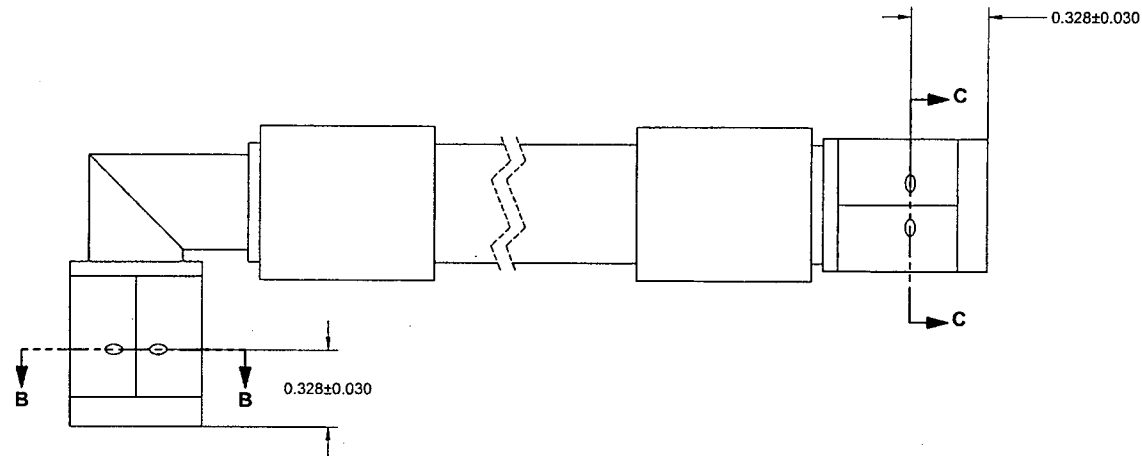
NOTES:

- 1) MATERIAL: PER TABLE
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART OSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N & B/N USING D2729 LABEL INSTALLED WITH D2182-045 HEAT SHRINK
- 7) WEIGHT: SEE TABLE
- 8) FOR ALTERNATE PART NUMBERS (101062BXXXXRXXXX), DRILL LOCK-WIRE HOLES PER SHEET 4, DETAIL A

RELEASED
2017-05-16

APPROVED

DESIGN	CC	DART AEROSPACE USA, INC. EUGENE, OR	
DRAWN	WK		
CHECKED	VS	DRAWING NO. D5373	REV. D
MFG. APPR.	LL	SHEET 3 OF 4	
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	OIL DRAIN LINE	NTS
DATE	17.04.25	COPYRIGHT © 2016 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



SECTION B-B

DETAIL A - LOCKWIRE HOLES (TYPICAL)

RELEASE
2017-05-16
APPROVED

DESIGN	CC	DART AEROSPACE USA, INC.	
DRAWN	WK	EUGENE, OR, USA	
CHECKED	VS	DRAWING NO.	REV. D
MFG. APPR.	LL	D5373	SHEET 4 OF 4
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	OIL DRAIN LINE	NTS
DATE	17.04.25	COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	